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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/758,161	01/15/2004	Hitoshi Macjima	27663-000	4838
32137 7590 03/02/2010 PATENT DOCKET CLERK COWAN, LIEBOWITZ & LATMAN, P.C. 1133 AVENUE OF THE AMERICAS NEW YORK, NY 10036				
EXAMINER HYLTON, ROBIN ANNETTE				
ART UNIT 3781		PAPER NUMBER		
MAIL DATE 03/02/2010		DELIVERY MODE PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/758,161

**Applicant(s)**

MAEJIMA ET AL.

**Examiner**

ROBIN HYLTON

**Art Unit**

3781

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 November 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1.6.7.11-14, 22, 24-30 and 33-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1.6.7.11-14, 22, 24-30 and 33-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. Claims 1, 6,7, 11-14, 22, 24-30, 33-35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the claims are rejected for the following reasons:

The structure of the screw threads on the second component is not clearly set forth in the independent claims. In lines 5-6, there is a plurality of threads; in line 7, at least one of the threads is at a first lead angle, and in lines 8-9, at least another one of the threads is at a second angle. Between what two of the threads is the at least another of the threads disposed?

Dependent claims not specifically mentioned are rejected as depending from rejected base claims since they inherently contain the same deficiencies therein.

***Claim Rejections - 35 USC § 103***

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1, 6,7, 11-14, 22, 24-30, 33-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dailey (US 4,346,920) in view of Stines (US 5,290,260) and as evidenced by Jochem (US 7,097,790).

Dailey discloses a fastening device comprising a first component and a second component, each comprising screw threads. Dailey is silent regarding one of the screw threads of the second component having a different lead angle of the other threads and located therebetween.

Stines teaches it is known to provide a fastening device component having a plurality of screw threads (134,135) of a first lead angle and at least another of the screw threads (136) having a second and different lead angle and being disposed between two of the screw threads.

Dailey discloses it is known in the container art to provide a fastening device component with threads having differing length, height, pitch, and angle (col. 5, lines 6-8).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the teaching of a fastening device component having a plurality of screw threads of a first lead angle and at least another of the screw threads having a second and different lead angle and being disposed between two of the screw threads to the fastening device of Dailey. Doing so provides a fastening arrangement that prevents inadvertent slipping between the mating threads.

Dailey teaches the components have a modulus of elasticity. Wherein the components are formed of elastic material, they are capable of meeting the functional limitations set forth in the claims. Wherein the material is not considered elastic, it would have been obvious to one having ordinary skill in the art at the time the invention was made to form the components of Dailey of elastic material, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416. Utilizing an elastic material would provide a more resilient and durable unit.

Regarding the difference in the lead angles, Hammer is silent in the written description, but shows a difference in the drawing figures. It would have been obvious to one having ordinary skill in the art at the time the invention was made to form the threads to have lead angles differing about less than 2° or about 1.5°, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*,

617 F.2d 272, 205 USPQ 215 (CCPA 1980). In the instant case, the difference would allow for enough of a difference to secure the components together without requiring an exorbitant amount of torque to release them when desired.

***Response to Arguments***

4. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Applicant is duly reminded that a complete response must satisfy the requirements of 37 C.F.R. 1.111, including: "The reply must present arguments pointing out the specific distinctions believed to render the claims, including any newly presented claims, patentable over any applied references. A general allegation that the claims "define a patentable invention" without specifically pointing out how the language of the claims patentably distinguishes them from the references does not comply with the requirements of this section. Moreover, "The prompt development of a clear Issue requires that the replies of the applicant meet the objections to

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and rejections of the claims." Applicant should also specifically point out the support for any amendments made to the disclosure. See MPEP 2163.06 II(A), MPEP 2163.06 and MPEP 714.02. The "disclosure" includes the claims, the specification and the drawings.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Various prior art closures teaching features similar to those disclosed and/or claimed are cited for their disclosures.

8. In order to reduce pendency and avoid potential delays, Group 3720/80 is encouraging FAXing of responses to Office Actions directly into the Group at (571) 273-8300. This practice may be used for filing papers not requiring a fee. It may also be used for filing papers which require a fee by applicants who authorize charges to a PTO deposit account. Please identify the examiner and art unit at the top of your cover sheet. Papers submitted via FAX into Group 3720/80 will be promptly forwarded to the examiner.

9. It is called to applicant's attention that if a communication is faxed before the reply time has expired, applicant may submit the reply with a "Certificate of Facsimile" which merely asserts that the reply is being faxed on a given date. So faxed, before the period for reply has expired, the reply may be considered timely. A suggested format for a certificate follows:

I hereby certify that this correspondence for Application Serial No. \_\_\_\_\_ is being facsimiled to The U.S. Patent and Trademark Office via fax number 571-273-8300 on the date shown below:

Typed or printed name of person signing this certificate

\_\_\_\_\_

Signature \_\_\_\_\_

Date \_\_\_\_\_

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robin Hylton whose telephone number is (571) 272-4540. The examiner can normally be reached Monday, Tuesday, Thursday, and Friday from 9:00 a.m. to 4:00 p.m. (Eastern time).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Stashick, can be reached on (571) 272-4561.

Any inquiry of a general nature or relating to the status of this application or proceeding may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Other helpful telephone numbers are listed for applicant's benefit:

- Allowed Files & Publication (888) 786-0101
- Assignment Branch (800) 972-6382
- Certificates of Correction (703) 305-8309
- Fee Questions (571) 272-6400
- Inventor Assistance Center (800) PTO-9199
- Petitions/special Programs (571) 272-3282
- Information Help line 1-800-786-9199
- Internet PTO-Home Page <http://www.uspto.gov>

February 27, 2010

/Robin A. Hylton/  
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GAU 3781